

REMARKS/ARGUMENTS

Claims 4, 8-15 and 18-26 are pending in the Application. Reconsideration and a withdrawal of the outstanding rejections are hereby respectively requested.

Applicant has reviewed the Examiner's comments in the Office Action dated April 10, 2007. Applicant believes that its claims are not taught, suggested or disclosed by the cited references. The references, even when combined, fail to teach, suggest or disclose the Applicant's presently claimed invention. Applicant has amended the claims, as indicated above, and addresses below important features of the invention which support the patentability of the Applicant's claimed invention over the cited references.

Claim 8 has been amended to include the steps of:

preparing said data information from attributes of said data, said data information comprising an update_index file, wherein said cryptographic hash of data information comprises a cryptographic hash of said update_index file, and wherein comparing said cryptographic hash in order to determine if data information should be transmitted to said target includes comparing said cryptographic hash of said update_index file.

Claim 8 now more particularly defines the present invention over the cited art, as further discussed below.

New claims 25 and 26 have been added to more particularly define features of the present invention. New claims 25 and 26 are fully supported by the specification (see e.g., specification [0038]-[0048], [0051]-[0052]) and no new matter has been introduced.

NEW CLAIM 25:

New claim 25 has been added to more particularly define the invention by reciting that the data information comprises a module name and a hash of a module name, and that the cryptographic hash is a hash of the data information (e.g., hash of the data information contents -- the module name and hash of the module name).

NEW CLAIM 26:

New claim 26 has been added to further articulate and distinguish the Applicant's present invention by reciting that the data comprises one or more modules, and that the method involves performing an update with an update manager which includes extracting one or more modules and replacing files or byte sequences, wherein said one or more modules contain directions for replacement of byte sequences. The cryptographic hash of the data information referred to in claim 26 (and claims 25 and 4 from which it depends) would therefore be a cryptographic hash of the module name and hash for the module (which is contained in the update_index file for which the update_hash corresponds).

Claims 4, 8-15 and 18-21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,151,708 ("Pedrizetti") in view of US 6,493,871 ("McGuire") and in view of US 6,006,034 ("Heath"). This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection is hereby respectfully requested.

The Examiner relies on Pedrizetti, but acknowledges that this reference fails to disclose at least three features of the Applicant's claimed invention, namely, that first and

second hashes are cryptographic hashes, that the first cryptographic hash is comprised of a unique data identifier, and that the second hash is installed on the target. The Examiner applies additional references, namely, McGuire and Heath in an effort to supply the missing teachings or disclosure.

Even combining the further references of Heath and McGuire still would not result in the Applicant's invention.

The Examiner considers Heath to disclose, in Fig. 4D, comparing the cryptographic hash to determine whether the download should take place (step 419). From a reading of Heath, the comparison 419 referred to by the Examiner does not accomplish what is disclosed and claimed by the Applicant. Applicant has reviewed the Examiner's comments and provides a further explanation and clarification with respect to Heath and why the Applicant's present invention is distinguishable.

Applicant's invention provides for the target to have already installed on it cryptographic hashes. The distribution media, such as for example a server, has an update_index file. The server also has an update_hash which is a hash (e.g., a cryptographic hash) of the update_index file. As Applicant reads and understands Heath, that reference does not disclose using an update_index file and determining a hash from that. Rather, Heath is concerned with first ascertaining the file name and version number (step 416), determining whether that name and version number are present on the client (step 418) and then, in a further step (419), determining whether the client component has the same cryptographic digest, and, if not, then a retrieval of a component is carried out.

Applicant's invention provides and utilizes a cryptographic hash of the update_index. That is, the update_hash is returned in response to a request for data information (see Applicant's Fig. 1). This has the benefit of requiring and receiving/transmitting very small amounts of information (e.g., 50-150 bytes), which is designed to handle low bandwidth conditions. According to the Applicant's invention, the update_hash is then compared to the client update_hash. If the hashes are not the same, then the update_index 11 is obtained. (Fig. 2) A request for update_index is made, and the server update_index is retrieved/transmitted. The request for code is then made and the requested code received/transmitted from the code server (see Fig. 2). As shown in Fig. 3, the code is hashed and compared, and the client update_hash and update_index are replaced.

While the Examiner considers Heath for a disclosure of what is considered to be a component download and a cryptographic hash (referring to Fig. 4D of Heath), that does not disclose Applicant's invention, as illustrated in Figs. 1 and 2 of the Applicant's disclosure. Applicant provides an update_hash and compares the server update_hash with the client update_hash, thereafter, if the files require updating, the update_index is requested/transferred (see Applicant's Fig. 2). It is after the update manager obtains the update_index that the code is requested. Heath does not disclose an update_hash, and then an update_index, which may require very minimal bytes of information. Rather, Heath appears to be attempting to provide a catalog file and one or more components before ever proceeding with a step (419) where a cryptographic digest is evaluated. In

other words, it does not appear that Heath utilizes an `update_hash`, but rather as in Fig. 4D (step 416), has the actual contents communicated from which to read, and not just the hash. Thus Heath requires additional bandwidth for what it teaches as compared with the Applicant's present invention.

Therefore, for these reasons, Applicant's invention provides distinguishable features and advantages over the Heath disclosure. Applicant's method is important in that low bandwidth applications do not require the components to be checked in the manner that Heath proposes (which appears to use larger amounts of information that is transferred/received), but rather, only an `update_hash`, which is done before the `update_index` is requested. Heath appears to request the catalog first, and would not teach one of ordinary skill in the art to do what Applicant discloses and claims as its invention.

The Examiner in the current office action, on page 7 (and again throughout the office action), refers to Heath as disclosing a cryptographic digest or hash that is stored at or installed on the target, citing to Heath at col. 5, lines 64-67. That passage of Heath appears to discuss the catalog file:

Information in the catalog file, which at least includes the updated list of components and version numbers on the client, is stored at 317 in cache on the client until the subsequent version update.

(Heath, col. 5, lines 64-67)

Heath, however, does not disclose the installation of the hash of the Applicant's `update_hash`, but rather what appears as the hash as a component of the catalog or index,

which contains further information, and is essentially a larger file than the Applicant's update_hash. Moreover, the passage of Heath cited refers to a download.

Applicant's claim 4 recites "data" and "data information" and a "cryptographic hash of said data information". The cryptographic hash is a hash of the data information. This is not disclosed or suggested by the references, in particular the Heath reference. Claim 8 also recites "data information" and a "cryptographic hash of data information". This claim also would appear to be distinguishable over the cited references, including, in particular Heath, as discussed above.

Applicant has amended claim 8 in order to more particularly distinguish the invention over the cited references, including Heath. Amended claim 8 refers to the steps of providing the update_index and update_hash. Claim 8 now specifies that the server update_hash is comprised of a hash of the update_index file.

including preparing said data information from attributes of said data, said data information comprising an update_index file, wherein said cryptographic hash of data information comprises a cryptographic hash of said update_index file, and wherein comparing said cryptographic hash in order to determine if data information should be transmitted to said target includes comparing said cryptographic hash of said update_index file.

For the reasons set forth above, claim 8, as amended, is distinguishable over Heath and the other cited references.

For these reasons, even the combination of the cited references with Heath would still not teach, suggest or disclose the Applicant's invention.

Neither Pedrizetti nor McGuire discloses the Applicant's claimed invention. If Heath is attempted to be combined with these references, the combination still would not teach the Applicant's invention for the reasons set forth herein.

The remaining references, together or with Heath also fail to teach, suggest or disclose the present invention for yet additional reasons. McGuire fails to provide the teachings of the present invention. Applicant's invention is distinguishable over McGuire. The cited passage of McGuire that is referred to and relied on in the office action indicates that that McGuire requires that "each version of a file is identified by a hash number":

In accordance with a feature of the embodiment, the version identification does not rely on typical file version information such as a version number. Instead, each version of a given file is identified by a hash number generated by applying to it a hash function, such as the known MD5 algorithm. The hash values of different versions of a given file provide unique identifications to distinguish the respective versions.

(McGuire, col. 9, lines 9-16)

Accordingly, McGuire, even when combined with the other references (Pedrizetti and Heath), still fails to disclose or suggest the Applicant's claimed invention. The `update_hash`, which according to the Applicant's disclosure is a hash of the `update_index`, is distinguishable from what is disclosed by McGuire. Applicant's `update_hash` is described to be a hash of the `update_index`. The `update_index` is disclosed by Applicant to itself contain a hash as part of the information records. (See Applicant's published Specification at [0038]-0048]). This is not what McGuire appears to disclose.

For the above reasons, the Applicant's invention is not taught, suggested or disclosed by the cited references. Applicant's invention as recited in the claims, including in the new claims 25 and 26, should be patentable.

Reconsideration and a withdrawal of the 103(a) rejection is respectfully requested.

Claims 22 and 23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over by US Patent 6,151,708 ("Pedrizetti") in view of US 6,493,871 ("McGuire") in view of Ayers (U.S. 6,389,592) and in view of US 6,006,034 ("Heath"). This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection is hereby respectfully requested.

For the same reasons set forth above, Applicant's invention is not obvious in view of the cited references. Reconsideration and a withdrawal of the 103(a) rejection is respectfully requested

CONCLUSION

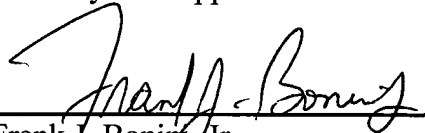
Applicant's invention is not taught, suggested or disclosed by the cited references relied on by the Examiner. Accordingly, Applicant's presently claimed invention should be patentable.

If further matters remain in connection with the case, Applicant respectfully requests an interview with the Examiner.

If necessary, an appropriate extension of time to respond is respectfully requested.

The Commissioner is authorized to charge any additional fees which may be required to Patent Office Deposit Account No. 05-0208.

Respectfully submitted,
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